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Sequence Listing was accepted.

If you need help call the Patent Electronic Business Center at (866) 217-9197 (toll free).

Reviewer: Durreshwar Anjum

Timestamp: [year=2009; month=4; day=23; hr=10; min=48; sec=52; ms=992; ]

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Application No: 10577008 Version No: 2.0

**Input Set:**

**Output Set:**

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**Finished:** 2009-04-10 15:09:40.968  
**Elapsed:** 0 hr(s) 0 min(s) 1 sec(s) 563 ms  
**Total Warnings:** 17  
**Total Errors:** 0  
**No. of SeqIDs Defined:** 17  
**Actual SeqID Count:** 17

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SEQUENCE LISTING

<110> SUZUKI, Toshiharu et al.

<120> MARKER PEPTIDE FOR ALZHEIMER'S DISEASE

<130> 3749-0112PUS1

<140> 10577008

<141> 2006-08-07

<150> PCT/JP2004/016209

<151> 2004-11-01

<150> JP 2003/375363

<151> 2003-11-05

<160> 17

<170> PatentIn version 3.5

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<211> 971

<212> PRT

<213> human

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Lys His Lys Pro Trp Leu Glu Pro Thr Tyr His Gly Ile Val Thr Glu  
35 40 45

Asn Asp Asn Thr Val Leu Leu Asp Pro Pro Leu Ile Ala Leu Asp Lys  
50 55 60

Asp Ala Pro Leu Arg Phe Ala Gly Glu Ile Cys Gly Phe Lys Ile His  
65 70 75 80

Gly Gln Asn Val Pro Phe Asp Ala Val Val Val Asp Lys Ser Thr Gly  
85 90 95

Glu Gly Val Ile Arg Ser Lys Glu Lys Leu Asp Cys Glu Leu Gln Lys  
100 105 110

Asp Tyr Ser Phe Thr Ile Gln Ala Tyr Asp Cys Gly Lys Gly Pro Asp  
115 120 125

Gly Thr Asn Val Lys Lys Ser His Lys Ala Thr Val His Ile Gln Val  
130 135 140

Asn Asp Val Asn Glu Tyr Ala Pro Val Phe Lys Glu Lys Ser Tyr Lys  
145 150 155 160

Ala Thr Val Ile Glu Gly Lys Gln Tyr Asp Ser Ile Leu Arg Val Glu  
165 170 175

Ala Val Asp Ala Asp Cys Ser Pro Gln Phe Ser Gln Ile Cys Ser Tyr  
180 185 190

Glu Ile Ile Thr Pro Asp Val Pro Phe Thr Val Asp Lys Asp Gly Tyr  
195 200 205

Ile Lys Asn Thr Glu Lys Leu Asn Tyr Gly Lys Glu His Gln Tyr Lys  
210 215 220

Leu Thr Val Thr Ala Tyr Asp Cys Gly Lys Lys Arg Ala Thr Glu Asp  
225 230 235 240

Val Leu Val Lys Ile Ser Ile Lys Pro Thr Cys Thr Pro Gly Trp Gln  
245 250 255

Gly Trp Asn Asn Arg Ile Glu Tyr Glu Pro Gly Thr Gly Ala Leu Ala  
260 265 270

Val Phe Pro Asn Ile His Leu Glu Thr Cys Asp Glu Pro Val Ala Ser  
275 280 285

Val Gln Ala Thr Val Glu Leu Glu Thr Ser His Ile Gly Lys Gly Cys  
290 295 300

Asp Arg Asp Thr Tyr Ser Glu Lys Ser Leu His Arg Leu Cys Gly Ala  
305 310 315 320

Ala Ala Gly Thr Ala Glu Leu Leu Pro Ser Pro Ser Gly Ser Leu Asn  
325 330 335

Trp Thr Met Gly Leu Pro Thr Asp Asn Gly His Asp Ser Asp Gln Val

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345

350

Phe Glu Phe Asn Gly Thr Gln Ala Val Arg Ile Pro Asp Gly Val Val  
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370 375 380

Gly Pro Phe Gly Arg Lys Lys Glu Thr Ile Leu Cys Ser Ser Asp Lys  
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Thr Asp Met Asn Arg His His Tyr Ser Leu Tyr Val His Gly Cys Arg  
405 410 415

Leu Ile Phe Leu Phe Arg Gln Asp Pro Ser Glu Glu Lys Lys Tyr Arg  
420 425 430

Pro Ala Glu Phe His Trp Lys Leu Asn Gln Val Cys Asp Glu Glu Trp  
435 440 445

His His Tyr Val Leu Asn Val Glu Phe Pro Ser Val Thr Leu Tyr Val  
450 455 460

Asp Gly Thr Ser His Glu Pro Phe Ser Val Thr Glu Asp Tyr Pro Leu  
465 470 475 480

His Pro Ser Lys Ile Glu Thr Gln Leu Val Val Gly Ala Cys Trp Gln  
485 490 495

Glu Phe Ser Gly Val Glu Asn Asp Asn Glu Thr Glu Pro Val Thr Val  
500 505 510

Ala Ser Ala Gly Gly Asp Leu His Met Thr Gln Phe Phe Arg Gly Asn  
515 520 525

Leu Ala Gly Leu Thr Leu Arg Ser Gly Lys Leu Ala Asp Lys Lys Val  
530 535 540

Ile Asp Cys Leu Tyr Thr Cys Lys Glu Gly Leu Asp Leu Gln Val Leu  
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Glu Asp Ser Gly Arg Gly Val Gln Ile Gln Ala His Pro Ser Gln Leu  
565 570 575

Val Leu Thr Leu Glu Gly Glu Asp Leu Gly Glu Leu Asp Lys Ala Met  
580 585 590

Gln His Ile Ser Tyr Leu Asn Ser Arg Gln Phe Pro Thr Pro Gly Ile  
595 600 605

Arg Arg Leu Lys Ile Thr Ser Thr Ile Lys Cys Phe Asn Glu Ala Thr  
610 615 620

Cys Ile Ser Val Pro Pro Val Asp Gly Tyr Val Met Val Leu Gln Pro  
625 630 635 640

Glu Glu Pro Lys Ile Ser Leu Ser Gly Val His His Phe Ala Arg Ala  
645 650 655

Ala Ser Glu Phe Glu Ser Ser Glu Gly Val Phe Leu Phe Pro Glu Leu  
660 665 670

Arg Ile Ile Ser Thr Ile Thr Arg Glu Val Glu Pro Glu Gly Asp Gly  
675 680 685

Ala Glu Asp Pro Thr Val Gln Glu Ser Leu Val Ser Glu Glu Ile Val  
690 695 700

His Asp Leu Asp Thr Cys Glu Val Thr Val Glu Gly Glu Glu Leu Asn  
705 710 715 720

His Glu Gln Glu Ser Leu Glu Val Asp Met Ala Arg Leu Gln Gln Lys  
725 730 735

Gly Ile Glu Val Ser Ser Glu Leu Gly Met Thr Phe Thr Gly Val  
740 745 750

Asp Thr Met Ala Ser Tyr Glu Glu Val Leu His Leu Leu Arg Tyr Arg  
755 760 765

Asn Trp His Ala Arg Ser Leu Leu Asp Arg Lys Phe Lys Leu Ile Cys  
770 775 780

Ser Glu Leu Asn Gly Arg Tyr Ile Ser Asn Glu Phe Lys Val Glu Val  
785 790 795 800

Asn Val Ile His Thr Ala Asn Pro Met Glu His Ala Asn His Met Ala  
805 810 815

Ala Gln Pro Gln Phe Val His Pro Glu His Arg Ser Phe Val Asp Leu  
820 825 830

Ser Gly His Asn Leu Ala Asn Pro His Pro Phe Ala Val Val Pro Ser  
835 840 845

Thr Ala Thr Val Val Ile Val Val Cys Val Ser Phe Leu Val Phe Met  
850 855 860

Ile Ile Leu Gly Val Phe Arg Ile Arg Ala Ala His Arg Arg Thr Met  
865 870 875 880

Arg Asp Gln Asp Thr Gly Lys Glu Asn Glu Met Asp Trp Asp Asp Ser  
885 890 895

Ala Leu Thr Ile Thr Val Asn Pro Met Glu Thr Tyr Glu Asp Gln His  
900 905 910

Ser Ser Glu Glu Glu Glu Glu Glu Glu Glu Glu Ser Glu Asp  
915 920 925

Gly Glu Glu Glu Asp Asp Ile Thr Ser Ala Glu Ser Glu Ser Ser Glu  
930 935 940

Glu Glu Glu Gly Glu Gln Gly Asp Pro Gln Asn Ala Thr Arg Gln Gln  
945 950 955 960

Gln Leu Glu Trp Asp Asp Ser Thr Leu Ser Tyr  
965 970

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<212> PRT  
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Pro Ala Asn Lys His Lys Pro Trp Ile Glu Ala Glu Tyr Gln Gly Ile  
35 40 45

Val Met Glu Asn Asp Asn Thr Val Leu Leu Asn Pro Pro Leu Phe Ala  
50 55 60

Leu Asp Lys Asp Ala Pro Leu Arg Tyr Ala Gly Glu Ile Cys Gly Phe  
65 70 75 80

Arg Leu His Gly Ser Gly Val Pro Phe Glu Ala Val Ile Leu Asp Lys  
85 90 95

Ala Thr Gly Glu Gly Leu Ile Arg Ala Lys Glu Pro Val Asp Cys Glu  
100 105 110

Ala Gln Lys Glu His Thr Phe Thr Ile Gln Ala Tyr Asp Cys Gly Glu  
115 120 125

Gly Pro Asp Gly Ala Asn Thr Lys Lys Ser His Lys Ala Thr Val His  
130 135 140

Val Arg Val Asn Asp Val Asn Glu Phe Ala Pro Val Phe Val Glu Arg  
145 150 155 160

Leu Tyr Arg Ala Ala Val Thr Glu Gly Lys Leu Tyr Asp Arg Ile Leu  
165 170 175

Arg Val Glu Ala Ile Asp Gly Asp Cys Ser Pro Gln Tyr Ser Gln Ile  
180 185 190

Cys Tyr Tyr Glu Ile Leu Thr Pro Asn Thr Pro Phe Leu Ile Asp Asn  
195 200 205

Asp Gly Asn Ile Glu Asn Thr Glu Lys Leu Gln Tyr Ser Gly Glu Arg  
210 215 220

Leu Tyr Lys Phe Thr Val Thr Ala Tyr Asp Cys Gly Lys Lys Arg Ala  
225 230 235 240

Ala Asp Asp Ala Glu Val Glu Ile Gln Val Lys Pro Thr Cys Lys Pro  
245 250 255

Ser Trp Gln Gly Trp Asn Lys Arg Ile Glu Tyr Ala Pro Gly Ala Gly  
260 265 270

Ser Leu Ala Leu Phe Pro Gly Ile Arg Leu Glu Thr Cys Asp Glu Pro  
275 280 285

Leu Trp Asn Ile Gln Ala Thr Ile Glu Leu Gln Thr Ser His Val Ala  
290 295 300

Lys Gly Cys Asp Arg Asp Asn Tyr Ser Glu Arg Ala Leu Arg Lys Leu  
305 310 315 320

Cys Gly Ala Ala Thr Gly Glu Val Asp Leu Leu Pro Met Pro Gly Pro  
325 330 335

Asn Ala Asn Trp Thr Ala Gly Leu Ser Val His Tyr Ser Gln Asp Ser  
340 345 350

Ser Leu Ile Tyr Trp Phe Asn Gly Thr Gln Ala Val Gln Val Pro Leu  
355 360 365

Gly Gly Pro Ser Gly Leu Gly Ser Gly Pro Gln Asp Ser Leu Ser Asp  
370 375 380

His Phe Thr Leu Ser Phe Trp Met Lys His Gly Val Thr Pro Asn Lys  
385 390 395 400

Gly Lys Lys Glu Glu Glu Thr Ile Val Cys Asn Thr Val Gln Asn Glu  
405 410 415

Asp Gly Phe Ser His Tyr Ser Leu Thr Val His Gly Cys Arg Ile Ala  
420 425 430

Phe Leu Tyr Trp Pro Leu Leu Glu Ser Ala Arg Pro Val Lys Phe Leu  
435 440 445

Trp Lys Leu Glu Gln Val Cys Asp Asp Glu Trp His His Tyr Ala Leu  
450 455 460

Asn Leu Glu Phe Pro Thr Val Thr Leu Tyr Thr Asp Gly Ile Ser Phe  
465 470 475 480

Asp Pro Ala Leu Ile His Asp Asn Gly Leu Ile His Pro Pro Arg Arg  
485 490 495

Glu Pro Ala Leu Met Ile Gly Ala Cys Trp Thr Glu Glu Lys Asn Lys  
500 505 510

Glu Lys Glu Lys Gly Asp Asn Ser Thr Asp Thr Thr Gln Gly Asp Pro  
515 520 525

Leu Ser Ile His His Tyr Phe His Gly Tyr Leu Ala Gly Phe Ser Val  
530 535 540

Arg Ser Gly Arg Leu Glu Ser Arg Glu Val Ile Glu Cys Leu Tyr Ala  
545 550 555 560

Cys Arg Glu Gly Leu Asp Tyr Arg Asp Phe Glu Ser Leu Gly Lys Gly  
565 570 575

Met Lys Val His Val Asn Pro Ser Gln Ser Leu Leu Thr Leu Glu Gly  
580 585 590

Asp Asp Val Glu Thr Phe Asn His Ala Leu Gln His Val Ala Tyr Met  
595 600 605

Asn Thr Leu Arg Phe Ala Thr Pro Gly Val Arg Pro Leu Arg Leu Thr  
610 615 620

Thr Ala Val Lys Cys Phe Ser Glu Glu Ser Cys Val Ser Ile Pro Glu  
625 630 635 640

Val Glu Gly Tyr Val Val Val Leu Gln Pro Asp Ala Pro Gln Ile Leu  
645 650 655

Leu Ser Gly Thr Ala His Phe Ala Arg Pro Ala Val Asp Phe Glu Gly  
660 665 670

Thr Asn Gly Val Pro Leu Phe Pro Asp Leu Gln Ile Thr Cys Ser Ile  
675 680 685

Ser His Gln Val Glu Ala Lys Lys Asp Glu Ser Trp Gln Gly Thr Val  
690 695 700

Thr Asp Thr Arg Met Ser Asp Glu Ile Val His Asn Leu Asp Gly Cys  
705 710 715 720

Glu Ile Ser Leu Val Gly Asp Asp Leu Asp Pro Glu Arg Glu Ser Leu  
725 730 735

Leu Leu Asp Thr Thr Ser Leu Gln Gln Arg Gly Leu Glu Leu Thr Asn  
740 745 750

Thr Ser Ala Tyr Leu Thr Ile Ala Gly Val Glu Ser Ile Thr Val Tyr  
755 760 765

Glu Glu Ile Leu Arg Gln Ala Arg Tyr Arg Leu Arg His Gly Ala Ala  
770 775 780

Leu Tyr Thr Arg Lys Phe Arg Leu Ser Cys Ser Glu Met Asn Gly Arg  
785 790 795 800

Tyr Ser Ser Asn Glu Phe Ile Val Glu Val Asn Val Leu His Ser Met  
805 810 815

Asn Arg Val Ala His Pro Ser His Val Leu Ser Ser Gln Gln Phe Leu  
820 825 830

His Arg Gly His Gln Pro Pro Pro Glu Met Ala Gly His Ser Leu Ala  
835 840 845

Ser Ser His Arg Asn Ser Met Ile Pro Ser Ala Ala Thr Leu Ile Ile  
850 855 860

Val Val Cys Val Gly Phe Leu Val Leu Met Val Val Leu Gly Leu Val  
865 870 875 880

Arg Ile His Ser Leu His Arg Arg Val Ser Gly Ala Gly Gly Pro Pro  
885 890 895

Gly Ala Ser Ser Asp Pro Lys Asp Pro Asp Leu Phe Trp Asp Asp Ser  
900 905 910

Ala Leu Thr Ile Ile Val Asn Pro Met Glu Ser Tyr Gln Asn Arg Gln  
915 920 925

Ser Cys Val Thr Gly Ala Val Gly Gly Gln Gln Glu Asp Glu Asp Ser

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935

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Ser Asp Ser Glu Val Ala Asp Ser Pro Ser Ser Asp Glu Arg Arg Ile  
945 950 955 960

Ile Glu Thr Pro Pro His Arg Tyr  
965

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Val Gly Ser Gly Ser Gly Gly Gly Asp Ser Arg Gln Arg Arg Leu  
20 25 30

Leu Ala Ala Lys Val Asn Lys His Lys Pro Trp Ile Glu Thr Ser Tyr  
35 40 45

His Gly Val Ile Thr Glu Asn Asn Asp Thr Val Ile Leu Asp Pro Pro  
50 55 60

Leu Val Ala Leu Asp Lys Asp Ala Pro Val Pro Phe Ala Gly Glu Ile  
65 70 75 80

Cys Ala Phe Lys Ile His Gly Gln Glu Leu Pro Phe Glu Al